IT Project Evaluation

State of Iowa - Return on Investment Program / IT Project Evaluation

Tracking Number (For Project Office Use)

SECTION 1: PROPOSAL

Project Name: **Iowa Veterans Home Network Domain** Date: July 21, 2000

Agency Point of Contact for Project: Greg Wright, Business Manager

Agency Point of Contact Phone Number / E-mail: 641.753.4306 / gwright@dhs.state.ia.us

Executive Sponsor (Agency Director or Designee) Signature: Jack J. Dack, Commandant

Is this project necessary for compliance with a Federal standard, initiative, or statute? (If "Yes," cite specific requirement, attach copy of requirement, and explain in Proposal Summary) **The Health Portability and Accountability Act (HIPAA) of 1996, Public Law 104-191.** **See Proposal Summary # 4.**	**Yes**
Is this project required by State statute? (If "Yes," explain in Proposal Summary)	**No**
Does this project meet a health, safety or security requirement? (If "Yes," explain in Proposal Summary) **See Proposal Summary # 5.**	**Yes**
Is this project necessary for compliance with an enterprise technology standard? (If "Yes," explain in Proposal Summary) **See Proposal Summary # 6.**	**Yes**
Does this project contribute to meeting a strategic goal of government? (If "Yes," explain in Proposal Summary) **See Proposal Summary # 7.**	**Yes**
Is this a "research and development" project? (If "Yes," explain in Proposal Summary)	**No**

PROPOSAL SUMMARY:

In written detail, explain why the project is being undertaken and the results that are expected. This includes, but is not limited to, the following:

1. A pre-project (before implementation) and a post-project (after implementation) description of the system or process that will be impacted.

1. A. Pre-Project Description

The Iowa Veterans Home (IVH) is currently part of the computer network managed by the Department of Human Services (DHS), who originally intended to provide access to their network for only two income maintenance workers. We have currently attached 254 personal computers to this network that is neither designed nor maintained for this level of use. We have held meetings with DHS for over a year to discuss the level of support we need to have them provide for us, and they are unable to provide support at the level we need.

Compliance with the rules and regulations set by another agency (i.e. DHS) to promote the goals and priorities of that agency creates inefficiencies in IVH's operation such as duplicate data entry, excessive downtime, more expensive equipment than necessary because of duplicate standards, delay in service to our staff and to our residents/patients, limitations in growth potential of communications systems, complications in installations of software upgrades/patches/service packs, confusion regarding legality of licensing of software, multiple levels of bureaucracy such as forms to be filled out, unreliability of backup systems and lack of immediacy of restore procedures, and, especially, inability to provide a high degree of security and data redundancy for the highly confidential data for which we are responsible. Additionally, we are unable to respond in a timely way to requests for data from regulatory agencies.

Currently, we are unable to provide networked computer access to a large number of our care-giving professionals, making it necessary to keep health care records on paper and hand carry these records from office to office. The data entered into the medical record is primarily done by using pen and paper or is produced on a computer using a word processing application. This information on paper is then hand carried to another location where it is entered into the Medical Record System by data entry operators. The duplicate data entry procedure is highly inefficient and also results in a higher incidence of errors in the data. Many of the records are printed on sticky backed paper so that the information can be peeled and stuck onto the resident/patient's medical chart. This process demands special, relatively expensive, printers that are only effective with a high level of maintenance and support.

We do not currently have administrative rights on our own servers. This means that when a new server, which we must order to DHS' specifications, is to be set up, we must load it up and haul it to Des Moines where the software can be loaded and the server can be set up to run. We then load it up again and bring it back to Marshalltown. Whenever a change needs to be made involving the right to logon as a network administrator, we have to haul it back to Des Moines or beseech someone from DHS to come to Marshalltown. This is not because we don't have the training or education to perform these tasks, but rather because DHS' rule is that no one who does not report directly to the Director of IT for the Department of Human Services is allowed to have administrative rights.

Because we must observe the rules and regulations that DHS imposes upon their network, we are forced to maintain separate networks for parts of our organizations which cannot comply with those rules. For example, it is imperative that we provide access to the server on the Maintenance system for the vendor who provides support for that system. Lack of support could mean, for instance, lack of heat to any or all of our buildings in the middle of winter. We are not permitted, under the DHS network rules, to provide this access. Therefore, we have separate networks on our campus that cannot communicate with each other, making the exchange of e-mail and sharing of data impossible electronically.

1. B. Post-Project Description

Because we are no longer part of DHS, we propose to move to our own network domain, to enable us to efficiently design, maintain and upgrade our computer network in alignment with the goals and priorities we set for the quality of care provided to our residents/patients.

The establishment of our own network domain would enable the agency to provide personal computers, with current software and operating systems as recommended by the Information Technology Department, to managers, supervisors and other care providers, and to attach those personal computers to a network so that they are able to share the medical and pharmaceutical records of residents/patients, eliminating the very slow, cumbersome practice of keeping such records on paper and hand-carrying these records from office to office.

The direct benefits of implementation of these enhancements are efficient, agency-wide electronic mail; facilitation of exchange of medical record information, such as telemedicine and teleradiology, as well as charts, notes and prescriptions; enhanced resident/patient care, through such current technology as unit-dose prescriptions in pharmacy; improved compliance with state and federal regulations; and improved capability for compliance with Title XVIII (Medicare) and Title XIX (Medicaid). We plan to put all of the agency policies and procedures, now in paper form in manuals throughout the agency, online so that everyone is able to access them through the use of personal computers, making it possible to make changes in just one place, rather than change approximately 65 manuals throughout the institution.

Having administrative rights to our own network would allow us to operate with a high degree of integrity and reliability at a level expected and relied upon by doctors, nurses, therapists, pharmacists and other medical personnel. Efficiencies would be gained by creating our own standards in line with our mission and goals for the care of residents/patients. Additional efficiencies would be realized by using centralized installation and upgrade procedures. We would be more readily able to assure legal licensing procedures. Reliable backup procedures could be performed on site incorporating instant restoration of lost or compromised data. For example, we have had to redo three days of work rather than just one because the most recent two backups done by DHS were not reliable.

Enhancements to the communication system in the facility would increase the efficiency of the doctors, nurses, therapists, pharmacists and other medical personnel providing them with more time to provide quality care to the residents/patients of the Iowa Veterans Home. We believe we will have approximately 360 total workstations within a year or two. This increase could lead to better health care and, conceivably, in the most extreme instances, to the saving of lives. This increase in the level of care staff are able to provide would also impact their self esteem, confidence in job execution and work performance satisfaction.

2. A summary of the extent to which the project provides tangible and intangible benefits to either Iowa citizens or to State government. Included would be such items as qualifying for additional matching funds, improving the quality of life, reducing the government hassle factor, providing enhanced services, improving work processes, complying with enterprise technology standards, meeting a strategic goal, avoiding the loss of matching funds, avoiding program penalties/sanctions or interest charges, avoiding risks to health/security/safety, complying with federal or state laws, etc.

Enhancement of our computer network system would allow care providers to spend less time on record keeping and more time providing hands-on care to our resident/patients, improving their quality of life. We would also be able to eliminate duplicate data entry, many duplications in forms to be filled out, and other bureaucratic hassles currently necessary because of the involvement of an additional agency in our current system. Our mission and vision statements reflect our desire to provide the best possible care. Improvement of our communication systems in alignment with our goals for providing enhanced services and improving our work processes would allow us the capability to directly pursue our mission and vision. These are examples of intangible benefits.

Examples of tangible benefits would include not having to pay fines, penalties and sanctions which might be invoked if we are not able to improve the communication system and are forced to proceed with the paper records. In a case where we were unable to meet the reporting requirements of our oversight agencies, fines and penalties could be levied against us. These fines could be as high as $10,000 per day and/or $10,000 per instance. Elimination of the possibility of having to pay these fines and penalties is a tangible benefit.

3. A summary that identifies the project stakeholders and how they are impacted by the project.

The stakeholders are the staff of the Iowa Veterans Home and the resident/patients of the Iowa Veterans Home. The staff would have more control over the performance of their designated functions of providing care, spending less time on paperwork and bureaucratic hassles. A direct result of this gain in control would be increased job satisfaction and self esteem. The resident/patients would receive improved quality and quantity of care as a result of these enhancements.

Other stakeholders include the Department of Human Services whose employees would not be regularly inveighed by us to provide services they are not staffed to provide and which their policies prevent them from providing. They have told us that they would be very glad to have us move to our own network domain.

4. Compliance with Federal Statute

The Health Insurance Portability and Accountability Act (HIPAA), finalized in the last few months, mandates an increase in the level of security for the health and pharmaceutical records which we are mandated to keep. Without control of our own network, we are unable to mandate necessary security procedures. Information regarding the HIPAA regulation is available at www.hcfa.gov/medicaid/hipaa/default.asp.

We are also required to meet certain mandates of Title XVIII (Medicare) and Title XIX (Medicaid).

5. Meet Health, Safety and Security Requirements

The Iowa Veterans Home is responsible for the medical and pharmaceutical records of all residents/patients. These records, along with other information regarding the general well-being and quality of life of residents/patients must be available to any designated caregivers and to federal and state regulatory agencies. This communication and reporting function is only possible through an efficient computerized communication system that provides access to all necessary information to both care providers and oversight agencies.

A computerized resident medical record system is required of all long-term care facilities for transmission of new admissions to our Medicaid program. The Omnibus Budget Reconciliation Act (OBRA) of 1987 mandated an assessment process for residents of long-term care facilities, the “Resident Assessment Instrument”. A portion of this instrument, the “Minimum Data Set”, was required, as of 6/22/98, to be computerized so that it can be electronically “submitted” to a state repository. The system also allows us to meet reporting requirements for the Iowa

Department of Inspections and Appeals (DIA), the Health Care Financing Administration (HCFA), and the Joint Commission on Accreditation of Healthcare Organizations (JCAHO). We are also required to meet standards set by the Occupational Safety and Health Administration (OSHA). These regulatory agencies continue to expand their mandatory requirements thereby increasing the level of communication demands placed on the Iowa Veterans Home.

The most decisive advantage would be the higher level of security that could be provided for our medical record data. The privacy of this data is increasingly scrutinized by federal and state legislatures. The Health Insurance Portability and Accountability Act (HIPAA), finalized in the last few months, will increase the level of security mandated for these records. It is imperative that we establish the ability to provide the high level of security compatible with the level of confidentiality demanded by our oversight agencies.

6. Compliance with Enterprise Technology Standard

We are currently using Windows NT Server and Windows NT Workstation as recommended by the Information Technology Department. These operating systems are not supported by the Department of Human Services making many operations more cumbersome and, in many cases impossible. For instance, DHS sends out upgrades to the operating system and to the virus protection through the network, but because we are on an operating system which is unsupported, this practice does not work in our agency making it necessary to visit each of our 254 workstations in each of seven buildings on our campus for each upgrade or enhancement to any of these systems. This is a costly and time consuming practice. We strive to be aware of all Information Technology Department standards and guidelines and to implement these standards and guidelines throughout our deployment of technology.

7. Contribution to Meeting Strategic Goal of Government

Strategic goals of government relevant to this statement are such things as increased quality of care for resident/patients, increased compliance with oversight agencies, increased government economy and efficiency, and increased empowerment of employees. All of these goals have been discussed above.

SECTION 2: PROJECT PLAN

Individual project plans will vary depending upon the size and complexity of the project. A project plan includes the following information:

1. Agency Information

Project Executive Sponsor Responsibilities: Identify, in Section I, the executive who is the sponsor of the project. The sponsor must have the authority to ensure that adequate resources are available for the entire project, that there is commitment and support for the project, and that the organization will achieve successful project implementation.

The sponsor of the project, Greg Wright, who is the Business Manager for the Iowa Veterans Home is supported in this goal by the Information Technology staff, the Information Technology Steering Committee, Mr. Jack J. Dack, the Commandant, and staff at all levels throughout the institution.

Organization Skills: Identify the skills that are necessary for successful project implementation. Identify which of these skills are available within the agency and the source(s) and acquisition plan for the skills that are lacking.

Professional training in network administration would be necessary for Information Technology staff. Information Technology Specialists currently on staff have a solid background in network management, personal computer installation and maintenance, infrastructure support and operating system support. Money is being requested as part of this project for network administration training.

2. Project Information

Mission, Goals, Objectives: The project plan should clearly demonstrate that the project has developed from an idea to a detailed plan of action. The project plan must link the project to an agency's mission, goals, and objectives and define project objectives and how they will be reached. The project plan should include the following:

The mission of the Iowa Veterans Home is to provide quality interdisciplinary care for the veteran residents and spouses so that their optimal level of dignity, self-worth, wellness and independence can be achieved. The goal of this project is to eliminate inefficiencies so that caregivers can spend more time attending to the needs of the residents/patients and to assure the quality and confidentiality of the medical record for each of those resident/patients. An additional goal is to be able to respond quickly and accurately to requests for data from our regulatory agencies.

An Information Technology Strategic Plan, a copy of which is attached, includes moving the Iowa Veterans Home to our own network domain.

Expectations: A description of the purpose or reason that the effort is being undertaken and the results that are anticipated.

This project is being undertaken to provide an enhanced method of communication to staff at the Iowa Veterans Home. It is expected that this increased communication will increase the level of care provided to residents/patients and insure the completeness and validity of their medical records. It will also leverage the interaction between our agency and the federal Veterans Administration Hospitals through which a Community Based Outpatient Clinic is planned for location on our campus.

A. **Measures**: A description of the set of beliefs, tradeoffs and philosophies that govern the results of the project and their attainment. How is the project to be judged or valued? What criteria will be used to determine if the project is successful? What happens if the project fails?

It is believed, because similar efforts have been undertaken in other agencies, public and private, that increased communication will raise the quality of the product we provide which is health care. It is generally accepted that electronic communication increases the efficiency of communication in all forms of business. It is increasingly impossible to meet the requirements of our oversight agencies without access to data stored and retrieved electronically. The value of this project will be apparent in many ways, but of paramount importance is the ability to respond to requests for information during inspections by state and federal agencies. If the project fails, we could be faced with substantial and/or severe fines and penalties.

B. **Environment:** Who will provide input (e.g., businesses, other agencies, citizens) into the development of the solution? Are others creating similar or related projects? Are there cooperation opportunities?

We plan to follow the guidelines and mandates of the Iowa Information Technology Department. Nearly all state agencies currently have administrative rights on their own networks and are able to determine their own communication needs in alignment with their own mission, goals and objectives. All of our plans have been determined by standards in effect within Iowa state government.

C. **Project Management and Risk Mitigation**: A description of how you plan to manage the project budget, project scope, vendors, contracts and business process change (if applicable). Describe how you plan to mitigate project risk.

Because we have the experience of many other state agencies to guide us, we will be able to keep risk at the very minimum. We have been in consultation with the Iowa Information Technology Department through each phase of the planning of this project. We have been in consultation with vendors regarding the prices which we have used to estimate the cost of the project. These vendors have been involved in similar implementations many times. The project will be staged and implemented by Information Technology staff reporting to the Business Manager and to the Iowa Veterans Home Information Technology Steering Committee.

Security / Data Integrity / Data Accuracy / Information Privacy: A description of the security requirements of the project? How will these requirements be integrated into the project and tested. What measures will be taken to insure data integrity, data accuracy and information privacy?

Security, data integrity, data accuracy and information privacy will be among the results of this project. The ability to manage and administer our own computer network domain will provide us with the technical ability to oversee all of these areas over which we now have little or no control.

3. Current Technology Environment (Describe the following):

A. **Software (Client Side / Server Side / Midrange / Mainframe)**

- Application software
  - Microsoft Office Suite (Office 97 and Office 2000)
  - Internet Explorer
  - Adobe Acrobat Reader
  - Norton Antivirus
  - Surf Control Internet monitoring software
  - Arc Serve backup software
  - Various proprietary specialized systems (Pharmacy, Building Maintenance, Medical Information, Medical Records, Dietary, Time Clock, Safety and Training, Medicare and Medicaid)

- Operating system software
  - Windows NT Client
  - Windows NT Server
  - Unix on DPX20 mini computer

- Interfaces to other systems: Identify important or major interfaces to internal and external systems
  - G-Link terminal emulator for connection to state mainframe system

B. **Hardware (Client Side / Server Side / Mid-range / Mainframe):**

- Platform, operating system, storage and physical environmental requirements.
  - Workstations
    - Wild Rose
    - Compaq Deskpro DPENS P400
    - Compaq Deskpro DPEP P550
  - Bull DPX20 mini computer
  - Servers
    - NCR S26XLPII

Connectivity and Bandwidth: If applicable, describe logical and physical connectivity.

Fiber Optic cable between 7 main buildings
Fiber Optic Risers to upper floors of 2 buildings with 4 floors
Category 5 cable from switches to desktops
Switches
Cisco 6509-main switch
Cisco 2924 XL series

- Interfaces to other systems: Identify important or major interfaces to internal and external systems.

Router
Baystack Access Node Communications Server model # AE1001007

4. Proposed Environment (Describe the following):

A. Software (Client Side / Server side / Mid-range / Mainframe)

- Application software.

Microsoft Office Suite (Office 2000)
Internet Explorer
Adobe Acrobat Reader
Norton Antivirus
Surf Control Internet monitoring software
Arc Serve backup software
Various proprietary specialized systems (Pharmacy, Building Maintenance, Medical Information, Medical Records, Dietary, Time Clock, Safety and Training, Medicare and Medicaid)

- Operating system software.

Windows NT Client
Windows 2000 Client
Windows 2000 Server

- Interfaces to other systems: Identify important or major interfaces to internal and external systems.

G-Link terminal emulator for connection to state mainframe system

- General parameters if specific parameters are unknown or to be determined.

Windows 2000 Server compatible

B. Hardware (Client Side / Server Side / Mid-range / Mainframe)

- Platform, operating system, storage and physical environmental requirements.

Workstations
Wild Rose
Compaq Deskpro DPENS P400
Compaq Deskpro DPEP P550
Servers
NCR S26XLPII

Connectivity and Bandwidth: If applicable, describe logical and physical connectivity.

Fiber Optic cable between 7 main buildings
Fiber Optic Risers to upper floors of 2 buildings with 4 floors
Category 5 cable from switches to desktops
Switches
Cisco 6509-main switch
Cisco 2924 XL series

- Interfaces to other systems: Identify important or major interfaces to internal and external systems.

Router
Baystack Access Node Communications Server model # AE1001007

- General parameters if specific parameters are unknown or to be determined.

7 additional Servers with RAID 5 Technology
Primary Domain Server and Backup Server
Remote Access Server
Web and Intranet Server
Exchange Server
Switch and LAN Monitoring Server
System Management Software Server
File and Print Server
Firewall and Intrusion Detection
Tape Library Unit
Server Rack and Mounting

Data Elements: If the project creates a new database the project plan should include the specific software involved and a general description of the data elements.

N/A

Project Schedule: A schedule that includes: time lines, resources, tasks, checkpoints, deliverables and responsible parties.
See attached from Microsoft Project.

SECTION 3: Return On Investment (ROI) Financial Analysis

Project Budget:

Provide the estimated project cost by expense category.

Personnel	$ **113,500.00**
Software	$ **35,350.00**
Hardware	$ **175,205.00**
Training	$ **16,160.00**
Facilities	$
Professional Services	$
Supplies	$ **39,975.00**
Other (Specify)……	$
Total	$ **380,190.00**

We were instructed in a prior application not to include personnel or ongoing costs. Personnel and ongoing costs are included in this figure.

Project Funding:

Provide the estimated project cost by funding source.

State Funds	$ **380,190.00**	**100**	% of total cost
Federal Funds	$ none	0	% of total cost
Local Gov. Funds	$ none	0	% of total cost
Private Funds	$ none	0	% of total cost
Other Funds (Specify)	$ none	0	% of total cost
Total Cost:	$ **380,190.00**	**100**	% of total cost *

How much of the cost would be incurred by your agency from normal operating budgets (staff, equipment, etc.)? ..... $ none 0 %

How much of the cost would be paid by "requested IT project funding"? .. $ none 0 %

Provide the estimated project cost by fiscal year: FY **2001** $ **380,190.00**

FY_____ $_____

FY_____ $_____

It is anticipated that ongoing costs will be $126,905.00 which includes salaries and hardware and software maintenance.

*** We do generate federal money, but it is deposited directly to the state's General Fund.**

ROI Financial Worksheet Directions (Attach Written Detail as Requested):

Annual Pre-Project Cost -- Quantify, in written detail, all actual State government direct and indirect costs (personnel, support, equipment, etc.) associated with the activity, system or process prior to project implementation. This section should be completed only if State government costs are expected to be reduced as a result of project implementation.

Annual Post-Project Cost -- Quantify, in written detail, all estimated State government direct and indirect costs associated with activity, system or process after project implementation. This section should be completed only if State government costs are expected to be reduced as a result of project implementation.

State Government Benefit -- Subtract the total "Annual Post-Project Cost" from the total "Annual Pre-Project Cost." This section should be completed only if State government costs are expected to be reduced as a result of project implementation.

Citizen Benefit -- Quantify, in written detail, the estimated annual value of the project to Iowa citizens**.** This includes the "hard cost" value of avoiding expenses (hidden taxes) related to conducting business with State government. These expenses may be of a personal or business nature. They could be related to transportation, the time expended on or waiting for the manual processing of governmental paperwork such as licenses or applications, taking time off work, mailing, or other similar expenses.

Opportunity Value/Risk or Loss Avoidance Benefit -- Quantify, in written detail, the estimated annual benefit to Iowa citizens or to State government. This could include such items as qualifying for additional matching funds, avoiding the loss of matching funds, avoiding program penalties/sanctions or interest charges, avoiding risks to health/security/safety, avoiding the consequences of not complying with State or federal laws, providing enhanced services, avoiding the consequences of not complying with enterprise technology standards, etc.

Total Annual Project Benefit -- Add the values of all annual benefit categories.

Total Annual Project Cost -- Quantify, in written detail, the estimated annual new cost necessary to implement and maintain the project including consulting fees, equipment retirement, ongoing expenses (i.e. labor, etc.), other technology (hardware, software and development), and any other specifically identifiable project related expense. In general, to calculate the annual hardware cost, divide the hardware and associated costs by three (3), the useful life. In general, to calculate the annual software cost, divide the software and associated costs by four (4), the useful life. This may require assigning consulting fees to hardware cost or to software cost. A different useful life may be used if it can be documented.

Benefit / Cost Ratio – Divide the "Total Annual Project Benefit" by the "Total Annual Project Cost." If the resulting figure is greater than one (1.00), then the annual project benefits exceed the annual project cost. If the resulting figure is less than one (1.00), then the annual project benefits are less than the annual project cost.

ROI -- Subtract the "Total Annual Project Cost" from the "Total Annual Project Benefit" and divide by the amount of the project funds requested.

Benefits Not Cost Related or Quantifiable -- List the project benefits and articulate, in written detail, why they (IT innovation, unique system application, utilization of new technology, hidden taxes, improving the quality of life, reducing the government hassle factor, meeting a strategic goal, etc.) are not cost related or quantifiable. Rate the importance of these benefits on a "1 – 10" basis, with "10" being of highest importance. Check the "Benefits Not Cost Related or Quantifiable" box in the applicable row.

ROI Financial Worksheet

Annual Pre-Project Cost - How You Perform The Function(s) Now	
FTE Cost (salary plus benefits):	**N/A**
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	**N/A**
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	**N/A**
A. Total Annual Pre-Project Cost:	**N/A**
Annual Post-Project Cost – How You Propose to Perform the Function(s)	
FTE Cost:	**N/A**
Support Cost (i.e. office supplies, telephone, pagers, travel, etc.):	**N/A**
Other Cost (expense items other than FTEs & support costs, i.e. indirect costs if applicable, etc.):	**N/A**
B. Total Annual Post-Project Cost:	**N/A**
State Government Benefit (= A-B):	**N/A**
Annual Benefit Summary	
State Government Benefit:	**N/A**
Citizen Benefit (including quantifiable "hidden taxes"):	**N/A**
Opportunity Value and Risk/Loss Avoidance Benefit:	**Impossible to Quantify**
C. Total Annual Project Benefit:	**N/A**
D. Total Annual Project Cost:	**$ 236,874.17 see explanation below**
Benefit / Cost Ratio (C / D):	**———**
ROI (C – D / Project Funds Requested):	**_____%**

X Benefits Not Cost Related or Quantifiable (including non-quantifiable "hidden taxes")

Benefits Not Cost Related or Quantifiable

Implementation of the plan set forth in this document would inevitably have the benefit of increasing staff efficiency, particularly with the move away from paper, and increasing staff satisfaction with job performance. It would be possible to achieve a high level of security while providing needed access to the vendors of proprietary software in use throughout the institution. Regulatory agencies continually increase the level of their demand making electronic retrieval of data mandatory and increasingly so. We will be in far better shape to address these increasingly demanding mandates with a computer system which directly addresses those needs. To date we have been able to minimize penalties, but as regulations become increasingly complex our exposure increases. Possible fines assessed by JCAHO for infractions range up to $10,000 per day and/or $10,000 per instance. There are health and safety issues of both staff and resident/patients at the heart of our mission which could, in an extreme case, result in death by not having updated information in a timely manner. It is not possible to put a price on this contingency.

Explanation for derivation of Total Annual Project Cost D.

From Project Budget

Personnel/year	$113,500.00
Software (divide by 4)	$ 8,837.50
Hardware (divide by 3)	$ 58,401.67
Training	$ 16,160.00
Supplies	$ 39,975.00
Total	**$236,874.17**